

REMARKS

Claims 13-25 are presently pending in the Application and the Examiner has rejected claim 13 under 35 U.S.C. § 112, second paragraph, as being indefinite for reciting a method without reciting any active, positive steps delimiting how the use is actually practiced. The Examiner has also rejected claim 13 under 35 U.S.C. § 101 because the claimed recitation of a use does not set forth any steps involved in the process, resulting in an improper definition of a process. The Applicant acknowledges and respectfully traverses the indefiniteness rejection in view of the amendment to claim 13 and the following remarks. Claim 13 has been amended herein above to recite active positive steps defining how the recited use is practiced to include steps and to clearly define a process by delimiting the steps involved in the process.

It will be noted that the amendments of claim 13 are fully supported by the specification and claims as originally filed, and that these amendments do not add any new matter to or alter the scope or subject matter of the invention, the specification or the claims.

The Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all rejections of claim 13 under 35 U.S.C. § 101 and 35 U.S.C. § 112.

The Examiner has also rejected claims 13-24 are rejected, under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons stated in the present Official Action. The Applicant acknowledges and respectfully traverses the indefiniteness rejection in view of the amendments to the claims and the previous and following remarks.

In response, the Applicant has amended the claims, including claims 13 and 14, to address and overcome the stated grounds for rejection of claims 13-25 under 35 U.S.C. § 112. Again, the amendments to the claims are fully supported by the specification and claims as originally filed, and that these amendments do not add any new matter to or alter the scope or subject matter of the invention, the specification or the claims.

The Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all rejections of claim 13-25 under 35 U.S.C. § 112.

Lastly, the Examiner has rejected claims 13-25 under 35 U.S.C. § 102(b) over Simonyi '983. The Applicant acknowledges and respectfully traverses all of the raised rejections in view of the following remarks.

As the Examiner is aware, in order to properly support an anticipation rejection under 35 U.S.C. § 102(b), the cited reference must disclose, teach or at least suggest each and every feature of the presently claimed invention

Therefore, first considering the present invention as recited in claim 13 as amended herein above, and as thereby recited in all dependent claims by dependency from claim 13, the present invention is directed to a method for controlling an actuator of a starting clutch of an automatic transmission of a motor vehicle independently of a vehicle operator to cause a "back-and-forth" rocking motion of the vehicle to free the vehicle from a roadway obstruction.

As recited in claim 13 as amended herein above, the method of the present invention includes the steps of (1) sensing a vehicle driving speed that is below a predetermined limit, (2) sensing at least one of (a) a slippage of at least one vehicle wheel that exceeds a predetermined slippage threshold or (b) a drive moment of a force acting against a vehicle wheel that exceeds a predetermined drive moment threshold, and (4) a positioning of the operator controlled gas pedal that exceeds a kick-down deflection angle. As described in the specification, the first three recited steps of the method determine whether the vehicle and roadway conditions are such as to allow initiation of the recited rocking motion of the vehicle to free the vehicle from the recited roadway obstruction while the fourth recited step states the step by the operator that initiates the automated rocking of the vehicle to overcome the obstruction. The last recited step of the method then recites the repetitive operations that cause the rocking motion of the vehicle that results in freeing the vehicle from the obstruction.

It will be noted from the recitations of amended claim 13 that the method of the present invention for freeing a vehicle from an obstruction in the roadway is fully independent of the operator. That is, the sole action required of or performed by the operator is to indicate that the method of the present invention is to be initiated by positioning the accelerator pedal at a deflection angle greater than the accelerator "kick-down" angle. The method of the present invention is thereafter entirely automatic, being controlled only by the conditions recited in claim 13, which are the continued sensing of (1) a vehicle driving speed that is below a predetermined limit, (2) at least one of (a) a slippage of at least one vehicle wheel that exceeds a predetermined slippage threshold or (b) a drive moment of a force acting against a vehicle wheel that exceeds a predetermined drive moment threshold, and (4) the continued positioning of the gas pedal at a deflection angle that exceeds the kick-down deflection angle.

Therefore, next considering the teachings of Simonyi '983, Simonyi '983 describes a system for freeing a motor vehicle having an automatic transmission from a roadway obstruction by repeated forward-reverse or "rocking" operation. In complete contrast from the present invention as recited in claim 13 and thereby in the dependent claims, however, the Simonyi '983 system requires an activation signal input from an operator actuated control switch (14) that must be activated by the driver to initiate operation of the system (column 3, lines 28-30) and a second continuously active control input from the operator in the form of a signal from the throttle pedal (11) (column 3, lines 19-27) to direct each forward and backward movement of the vehicle. As stated in Simonyi '983,

As soon as the driver presses the throttle pedal (10) . . . resulting in a command in form of a control signal to the proper valves of unit (7) for changing to low forward speed. Now if the driver lets back on the throttle pedal (10) . . . the flow of signals will be interrupted . . . By again pressing the throttle pedal (10) a signal again appears on the output . . . for changing into the reverse gear (column 4, line 56-column 5, line 10).

Finally, a control switch is provided, by means of which the driver gives the command for the implementation of the system according to the invention (column 3, line 28-30).

In complete and fundamental contrast from the present invention as recited in the amended claims, therefore, the Simonyi '983 is not controlled solely by a single actuation motion of the gas pedal by the operation, as recited in step 4 of the method as recited in claim 13.

In further fundamental contrast from the present invention, the Simonyi '983 system requires that the gas pedal be separately actuated for each forward move and for each backward move. In the present invention as recited in the claims, however, the steps of the method are continued automatically so long as conditions or steps 1-4 of claim 13 are met.

In still further fundamental contrast from the present invention, the Simonyi '983 system requires that the forward and backward motions be initiated, controlled and terminated based solely on the vehicle operator's judgement. In contrast, and as recited in the claims, the method of the present invention initiates, controls and terminates the rocking motion based upon factors that are sensed by the actuator controller and that do not depend in any way on the operator's judgement, such as the vehicle driving speed, the slippage of one or more wheels, and a drive moment of a force acting against a vehicle wheel. It will be noted that these factors determining the repetition frequency of the rocking motion, that is, of the engagement and disengagement of the clutch, are further defined in the dependent claims as including the vehicle speed, the vehicle weight, the wheel radius, the ground contact area of the wheels, forces influenced by the roadway obstruction and acting against progress of the vehicle in a current driving direction, the current vehicle direction and distance of motion, and so on.

In addition, new claims 26-34 are added to provide still further clarification of the presently claimed subject matter from that of the cited reference. In particular, in claim 26 recites the specific step of "tuning the periodic fluctuation of the transmitted clutch actuator to the characteristics of the motor vehicle and an obstacle in the drive path of the motor vehicle;" Again, these are factors entirely outside the direct control of the operator and therefore fundamentally different from Simonyi et al. '983. Also claim 26 includes the recitation similar to claim 13 wherein the automatic actuation of the clutch is utilized in "automatically overcoming the obstacle in the drive path while maintaining the predetermined transmission ratio unchanged during the periodic fluctuation operation of the actuator or the starting clutch." As these features are not disclosed, taught or suggested in any manner by the cited art, the Applicant believes these new claims to be allowable as well.

It is, therefore, the Applicant's belief and position that the present invention as recited in the claims as amended herein above is fully and patentably distinguished over the from the teachings and suggestions of Simonyi '983 under the requirements and provisions of 35 U.S.C. § 102 and 25 U.S.C. § 103.

The Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all rejections of the presnt invention over the cited prior art, and the allowance of the present Application including the claims as amended herein above.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Simonyi '983 reference, the Applicant respectfully requests the Examiner to indicate the

specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

The Applicant has submitted a new reference Steen et al., Pub. No. US 2006/0237249 uncovered during prosecution of the related Chinese national stage patent application. This reference has an effective filing date, based on PCT SE04/00625, of April 23, 2004, however this presently pending Application claims priority from DE 103 34 451.9 filed 29 July 2003, and therefore we do not believe that Steen et al. is effective prior art against this application. The Applicant asserts that this reference is not prior art to this Application, but is submitting the same in any event to ensure compliance with the Applicant Duty of Disclosure under 37 CFR §1.56.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

10/566,004

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Scott A. Daniels, Reg. No. 42,462
Customer No. 020210
Davis Bujold & Daniels, P.L.L.C.
112 Pleasant Street
Concord, NH 03301-2931
Telephone 603-226-7490
Facsimile 603-226-7499
E-mail: patent@davisandbujold.com